

WE CLAIM:

1. A plasma display panel for multi-screen system comprising
a front dielectric plate and a back dielectric plate;
transparent electrodes and addressing electrodes orthogonally located between said
front and back dielectric plates;
5 display cells defined by said transparent electrodes and said addressing electrodes ;
barrier ribs for separating and defining said display cells from each other; and
a sealing seam for sealing edge parts of said front and back dielectric plates, said
sealing seam having a width ranging from about 0.3 mm to about 1.5 mm and
said sealing seam having a sealing material composed of a glass powder with
10 a low melting point.
2. The plasma display panel according to claim 1, wherein said sealing material
occupies a space on inside surface of said front dielectric plate.
- 15 3. The plasma display panel according to claim 1, wherein said sealing material
occupies a space on inside surface of said back dielectric plate.
4. The plasma display panel according to claim 1, wherein said sealing material
occupies a space on both of said front and back dielectric plates.

5. The plasma display panel according to claim 1, wherein a shape of said sealing seam is characterized as rectangular.
6. The plasma display panel according to claim 1, wherein a shape of said sealing seam is characterized as semi-circle.
7. The plasma display panel according to claim 1, wherein a shape of said sealing seam is characterized as trapezoid.
8. The plasma display panel according to claim 1, wherein a shape of said sealing seam is characterized as triangular.
9. The plasma display panel according to claim 1, wherein said glass powder comprises:
PbO, ranging from about 50 to about 80 (wt.)% of the total composition,
SiO₂, ranging from about 2 to about 20 (wt.)% of the total composition,
B₂O₃, ranging from about 10 to about 30 (wt.)% of the total composition,
Al₂O₃, ranging from about 2 to about 18 (wt.)% of the total composition,
ZnO, ranging from about 3 to about 10 (wt.)% of the total composition,
CaO, ranging from about 2 to about 25 (wt.)% of the total composition.
10. A method of manufacturing the plasma display panel of claim 1 comprising the steps of:
preparing said front and back dielectric plates;

setting said transparent electrodes, said addressing electrodes, and their connection electrodes on said front and back dielectric plates;

constructing barrier ribs, at least one dielectric layer, and at least one protective layer;

depositing phosphor layers into display cells;

5 clamping said front and back dielectric plates even and tightly together;

forming a seam of filler with said low melting point glass powder;

heating the semi-finished assembly of the plasma display panel formed through above steps under a confining temperature of about 400°C to about 480°C, melting said glass powder filler to form said sealing seam of about 0.3 mm to about 1.5 mm in width and of
10 about 0.05 mm to about 0.2 mm in thickness, thereby forming the plasma display panel airtight.

11. A method of manufacturing the plasma display panel according to claim 1, wherein said sealing seam is formed through an overlapping screen printing process.